

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/009,782

DATE: 01/14/2002
TIME: 07:53:45

Input Set : A:\217301US0PCT.txt
Output Set: N:\CRF3\01142002\J009782.raw

ENTERED

3 <110> APPLICANT: TAKEUCHI, Ken-ichi
4 KOIDE, Yoshinao
5 HIROSE, Yoshihiko
6 MORIGUCHI, Mitsuaki
7 ISOBE, Kimiyasu
9 <120> TITLE OF INVENTION: TRANSFORMED MICROORGANISM AND PROCESS FOR PRODUCING D-
AMINOACYLASE
11 <130> FILE REFERENCE: 217301US0PCT
C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/009,782
C--> 13 <141> CURRENT FILING DATE: 2001-12-17
13 <150> PRIOR APPLICATION NUMBER: PCT/JP00/03932
14 <151> PRIOR FILING DATE: 2000-06-15
16 <160> NUMBER OF SEQ ID NOS: 2
18 <170> SOFTWARE: PatentIn version 3.1
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 1758
22 <212> TYPE: DNA
23 <213> ORGANISM: Alcaligenes xylosoxydans subsp. xylosoxydans
25 <220> FEATURE:
26 <221> NAME/KEY: CDS
27 <222> LOCATION: (34)..(1485)
28 <223> OTHER INFORMATION:
31 <400> SEQUENCE: 1
32 gaattccact ttagtcgcggaggagagatt tcc atg tcc caa tcc gat tcc cag 54
33 Met Ser Gln Ser Asp Ser Gln
34 1 5
36 ccc ttc gac ctg ctg ctc gcg ggc acc ctc atc gac ggc agc aac 102
37 Pro Phe Asp Leu Leu Ala Gly Gly Thr Leu Ile Asp Gly Ser Asn
38 10 15 20
40 acc ccg ggg cgg cgc gcc gac ctg ggc gtg cgc ggc gac cgc atc gcc 150
41 Thr Pro Gly Arg Ala Asp Leu Gly Val Arg Gly Asp Arg Ile Ala
42 25 30 35
44 gcc atc ggc gat ctg tcg gac gcc ggc cac acc cgg gtc gac gtg 198
45 Ala Ile Gly Asp Leu Ser Asp Ala Ala Ala His Thr Arg Val Asp Val
46 40 45 50 55
48 tcg ggc ctg gtg gtc gcg ccc ggc ttc atc gac tcg cac acc cac gac 246
49 Ser Gly Leu Val Val Ala Pro Gly Phe Ile Asp Ser His Thr Asp
50 60 65 70
52 gac aac tac ctg ctc agg cgt cgc gac atg ccc aag atc tcg cag 294
53 Asp Asn Tyr Leu Leu Arg Arg Asp Met Thr Pro Lys Ile Ser Gln
54 75 80 85
56 ggc gtc acc acg gtg gtc acg ggc aat tgc ggc atc agc ctg gcg cgg 342
57 Gly Val Thr Thr Val Val Thr Gly Asn Cys Gly Ile Ser Leu Ala Pro
58 90 95 100
60 ctg gcg cac gcc aac ccg ccc gcc ccc ctg gac ctg ctg gac gaa ggc 390
61 Leu Ala His Ala Asn Pro Pro Ala Pro Leu Asp Leu Leu Asp Glu Gly
62 105 110 115
64 ggc tct tac cgt ttc gag cgc ttc gcc gac tac ctg gac gcg ttg cgg 438

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/009,782

DATE: 01/14/2002
TIME: 07:53:45

Input Set : A:\217301US0PCT.txt
Output Set: N:\CRF3\01142002\J009782.raw

65	Gly Ser Tyr Arg Phe Glu Arg Phe Ala Asp Tyr Leu Asp Ala Leu Arg				
66	120	125	130	135	
68	gcc acg ccg gcg gcc gtc aac gcc gcc tgt atg gtg ggc cat tca acg				486
69	Ala Thr Pro Ala Ala Val Asn Ala Ala Cys Met Val Gly His Ser Thr				
70	140	145	150		
72	ctg ccg gcc gcg gtc atg ccg gac ttg cag ccg gcc gcc acc gac gag				534
73	Leu Arg Ala Ala Val Met Pro Asp Leu Gln Arg Ala Ala Thr Asp Glu				
74	155	160	165		
76	gaa atc gcg gcc atg cgg gac ctg gcc gag gaa gcc atg gcc agc ggc				582
77	Glu Ile Ala Ala Met Arg Asp Leu Ala Glu Ala Met Ala Ser Gly				
78	170	175	180		
80	gcc atc ggc att tcg acc ggc gcc ttc tac ccg ccc gcc gcc cgc gcc				630
81	Ala Ile Gly Ile Ser Thr Gly Ala Phe Tyr Pro Pro Ala Ala Arg Ala				
82	185	190	195		
84	acc acc gaa gag atc atc gag gtg tgc ccg ctg agc gcg cat ggc				678
85	Thr Thr Glu Glu Ile Glu Val Cys Arg Pro Leu Ser Ala His Gly				
86	200	205	210	215	
88	ggc atc tac gcc acc cac atg ccg gac gaa ggc gag cac atc gtg gcc				
89	Gly Ile Tyr Ala Thr His Met Arg Asp Glu Gly Glu His Ile Val Ala				
90	220	225	230		
92	gcg ctg gag gaa acc ttc ccg atc ggc ccg gag ctg gac gtg ccg gtg				774
93	Ala Leu Glu Glu Thr Phe Arg Ile Gly Arg Glu Leu Asp Val Pro Val				
94	235	240	245		
96	gtg atc tcg cac cac aag gtc atg ggc cag ccc aat ttc ggc cgc tcg				822
97	Val Ile Ser His His Lys Val Met Gly Gln Pro Asn Phe Gly Arg Ser				
98	250	255	260		
100	cgc gag acg ctg ccg atc gag gcc ggc atg gcg cgc cag gac gtc				870
101	Arg Glu Thr Leu Pro Leu Ile Glu Ala Ala Met Ala Arg Gln Asp Val				
102	265	270	275		
104	tcg ctg gac gcg tat ccc tac gtg gcc ggc tcc acc atg ctc aag cag				918
105	Ser Leu Asp Ala Tyr Pro Tyr Val Ala Gly Ser Thr Met Leu Lys Gln				
106	280	285	290	295	
108	gac ccg gtg ctg ccg gga ccg acc atc atc acc tgg tgc aag ccc				966
109	Asp Arg Val Leu Ala Gly Arg Thr Ile Ile Thr Trp Cys Lys Pro				
110	300	305	310		
112	ttc ccc gaa ctg agc ggg ccg gac ctg gat gaa gtc gcg gcc gag ccg				1014
113	Phe Pro Glu Leu Ser Gly Arg Asp Leu Asp Glu Val Ala Ala Glu Arg				
114	315	320	325		
116	ggc aaa tcc aag tac gac gtg gtc ccc gag ctg cag ccg gcc ggc gcc				1062
117	Gly Lys Ser Lys Tyr Asp Val Val Pro Glu Leu Gln Pro Ala Gly Ala				
118	330	335	340		
120	atc tac ttc atg atg gac gaa ccc gac gtg cag ccg atc ctg gcg ttc				1110
121	Ile Tyr Phe Met Met Asp Glu Pro Asp Val Gln Arg Ile Leu Ala Phe				
122	345	350	355		
124	ggc ccg acc atg atc ggc tcc gac ggc ctg ccg cac gac gag ccg ccg				1158
125	Gly Pro Thr Met Ile Gly Ser Asp Gly Leu Pro His Asp Glu Arg Pro				
126	360	365	370	375	
128	cat ccg ccg ctg tgg ggc acc ttc ccg ccg gtg ctg ggg cac tat gcg				
129	His Pro Arg Leu Trp Gly Thr Phe Pro Arg Val Leu Gly His Tyr Ala				

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/009,782

DATE: 01/14/2002
TIME: 07:53:45

Input Set : A:\217301US0PCT.txt
Output Set: N:\CRF3\01142002\J009782.raw

130	380	385	390	1254
132	cgc gac ctg ggc ctg ttc ccg ctg gag acg gcg gta tgg aag atg acc			
133	Arg Asp Leu Gly Leu Phe Pro Leu Glu Thr Ala Val Trp Lys Met Thr			
134	395	400	405	1302
136	ggc ctg acc gcc gcg cgc ttc ggc ctg gcc ggg cgc ggg cag ctg cag			
137	Gly Leu Thr Ala Ala Arg Phe Gly Leu Ala Gly Arg Gly Gln Leu Gln			
138	410	415	420	1350
140	gcc ggg tac ttc gcc gac ctg gtg ttc gac ccg gcc acg gtg gcc			
141	Ala Gly Tyr Phe Ala Asp Leu Val Val Phe Asp Pro Ala Thr Val Ala			
142	425	430	435	1398
144	gat acc gcc acc ttc gaa cac cct acc gag cgc gcc gcc ggc atc cat			
145	Asp Thr Ala Thr Phe Glu His Pro Thr Glu Arg Ala Ala Gly Ile His			
146	440	445	450	1446
148	tcc gtg tac gtc aac ggc gcg ccg gtc tgg caa gag cag gcg ttc acc			
149	Ser Val Tyr Val Asn Gly Ala Pro Val Trp Gln Glu Gln Ala Phe Thr			
150	460	465	470	1495
152	ggc cag cat gcc ggc cgc gtg ctc gca cgc acg gcc gcc tgagccggc			
153	Gly Gln His Ala Gly Arg Val Leu Ala Arg Thr Ala Ala			
154	475	480		
156	gccagccctt acaatccggc gtgaacgggg cggcgtgccg ccccctccca accctggacg			1555
158	caaaccgccta catggccctt ccctccgcgc gcaatacggc cccacccgat atcgtggca			1615
160	aggaagtgtat gggcgcgcgc ctgcgcgcgc agcgcagggc cggaaaatg accctgcaag			1675
162	acctgtcgca ggccagcggc atcgcggctc cgaccctgtc caaggccgag ctggccaga			1735
164	tcgcccgtag ctacgagaag ctt			1758
167	<210> SEQ ID NO: 2			
168	<211> LENGTH: 484			
169	<212> TYPE: PRT			
170	<213> ORGANISM: Alcaligenes xylosoxydans subsp. xylosoxydans			
172	<400> SEQUENCE: 2			
174	Met Ser Gln Ser Asp Ser Gln Pro Phe Asp Leu Leu Ala Gly Gly			
175	1 5 10 15			
178	Thr Leu Ile Asp Gly Ser Asn Thr Pro Gly Arg Arg Ala Asp Leu Gly			
179	20 25 30			
182	Val Arg Gly Asp Arg Ile Ala Ala Ile Gly Asp Leu Ser Asp Ala Ala			
183	35 40 45			
186	Ala His Thr Arg Val Asp Val Ser Gly Leu Val Val Ala Pro Gly Phe			
187	50 55 60			
190	Ile Asp Ser His Thr His Asp Asp Asn Tyr Leu Leu Arg Arg Arg Asp			
191	65 70 75 80			
194	Met Thr Pro Lys Ile Ser Gln Gly Val Thr Thr Val Val Thr Gly Asn			
195	85 90 95			
198	Cys Gly Ile Ser Leu Ala Pro Leu Ala His Ala Asn Pro Pro Ala Pro			
199	100 105 110			
202	Leu Asp Leu Leu Asp Glu Gly Gly Ser Tyr Arg Phe Glu Arg Phe Ala			
203	115 120 125			
206	Asp Tyr Leu Asp Ala Leu Arg Ala Thr Pro Ala Ala Val Asn Ala Ala			
207	130 135 140			
210	Cys Met Val Gly His Ser Thr Leu Arg Ala Ala Val Met Pro Asp Leu			
211	145 150 155 160			

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/009,782

DATE: 01/14/2002
TIME: 07:53:45

Input Set : A:\217301US0PCT.txt
Output Set: N:\CRF3\01142002\J009782.raw

214 Gln Arg Ala Ala Thr Asp Glu Glu Ile Ala Ala Met Arg Asp Leu Ala
215 165 170 175
218 Glu Glu Ala Met Ala Ser Gly Ala Ile Gly Ile Ser Thr Gly Ala Phe
219 180 185 190
222 Tyr Pro Pro Ala Ala Arg Ala Thr Thr Glu Glu Ile Ile Glu Val Cys
223 195 200 205
226 Arg Pro Leu Ser Ala His Gly Gly Ile Tyr Ala Thr His Met Arg Asp
227 210 215 220
230 Glu Gly Glu His Ile Val Ala Ala Leu Glu Glu Thr Phe Arg Ile Gly
231 225 230 235 240
234 Arg Glu Leu Asp Val Pro Val Val Ile Ser His His Lys Val Met Gly
235 245 250 255
238 Gln Pro Asn Phe Gly Arg Ser Arg Glu Thr Leu Pro Leu Ile Glu Ala
239 260 265 270
242 Ala Met Ala Arg Gln Asp Val Ser Leu Asp Ala Tyr Pro Tyr Val Ala
243 275 280 285
246 Gly Ser Thr Met Leu Lys Gln Asp Arg Val Leu Leu Ala Gly Arg Thr
247 290 295 300
250 Ile Ile Thr Trp Cys Lys Pro Phe Pro Glu Leu Ser Gly Arg Asp Leu
251 305 310 315 320
254 Asp Glu Val Ala Ala Glu Arg Gly Lys Ser Lys Tyr Asp Val Val Pro
255 325 330 335
258 Glu Leu Gln Pro Ala Gly Ala Ile Tyr Phe Met Met Asp Glu Pro Asp
259 340 345 350
262 Val Gln Arg Ile Leu Ala Phe Gly Pro Thr Met Ile Gly Ser Asp Gly
263 355 360 365
266 Leu Pro His Asp Glu Arg Pro His Pro Arg Leu Trp Gly Thr Phe Pro
267 370 375 380
270 Arg Val Leu Gly His Tyr Ala Arg Asp Leu Gly Leu Phe Pro Leu Glu
271 385 390 395 400
274 Thr Ala Val Trp Lys Met Thr Gly Leu Thr Ala Ala Arg Phe Gly Leu
275 405 410 415
278 Ala Gly Arg Gly Gln Leu Gln Ala Gly Tyr Phe Ala Asp Leu Val Val
279 420 425 430
282 Phe Asp Pro Ala Thr Val Ala Asp Thr Ala Thr Phe Glu His Pro Thr
283 435 440 445
286 Glu Arg Ala Ala Gly Ile His Ser Val Tyr Val Asn Gly Ala Pro Val
287 450 455 460
290 Trp Gln Glu Gln Ala Phe Thr Gly Gln His Ala Gly Arg Val Leu Ala
291 465 470 475 480
294 Arg Thr Ala Ala

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/009,782

DATE: 01/14/2002
TIME: 07:53:46

Input Set : A:\217301US0PCT.txt
Output Set: N:\CRF3\01142002\J009782.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date